



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0801; Directorate Identifier 2012-NM-106-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 737-200 and -200C series airplanes. This proposed AD was prompted by a report of elevator vibration and bearing swage failures. This proposed AD would require, for certain airplanes, repetitive inspections for any discrepancies (such as a gap or a loose spacer) of the aft attach lugs for the elevator tab control mechanism, and replacement if necessary, and for other airplanes, contacting the FAA for inspection or repair instructions and doing the work specified in those instructions. We are proposing this AD to detect and correct discrepancies in the aft attach lugs for the elevator tab control mechanism, which could result in elevator and tab vibration. Consequent structural failure of the elevator or horizontal stabilizer could result in loss of structural integrity and loss of airplane control.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate; 1601 Lind Avenue SW, Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Kelly McGuckin, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6490; fax: (425) 917-6590; email: Kelly.McGuckin@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0801; Directorate Identifier 2012-NM-106-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We received a report of elevator vibration and bearing swage failures on Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. Some Model 737-200 and -200C series airplanes have a similar design. Boeing did a design review and also reviewed the service history and found two incidents on Model 737-200 series airplanes of unrestrained elevator tab vibration with similar damage to that seen on the affected Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, although it has not been confirmed to be caused by the same issue. Discrepancies in the aft attach lugs for the elevator tab control mechanism, if not detected and corrected, could result in elevator and tab vibration. Consequent structural failure of the elevator or horizontal stabilizer could result in loss of structural integrity and loss of airplane control.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 737-27A1302, dated April 24, 2012. For certain airplanes, that service bulletin describes procedures for a detailed inspection for any discrepancies (such as a gap or a loose spacer) of the aft attach lugs for the elevator tab control mechanism, and replacement of the mechanism, if necessary.

Replacing the mechanism includes inspecting the mechanism being installed prior to and after installation for any discrepancies. For certain other airplanes, that service bulletin specifies contacting the manufacturer for inspection, change, or repair instructions, and doing the work specified in those instructions.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between the Proposed AD and the Service Information." The proposed AD would also require sending the initial inspection results to Boeing. This required inspection report will help determine if additional action is needed. Based on the results of these reports, we might determine that further corrective action is warranted.

Related Rulemaking

We issued AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010), to address the identified unsafe condition on Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes.

Differences Between the Proposed AD and the Service Information

Although the service bulletin specifies that, for Group 1 airplanes, operators may contact the manufacturer for certain inspection procedures and disposition of repair or replacement conditions, this proposed AD would require operators do those actions using a method approved by the Manager, Seattle Aircraft Certification Office, FAA.

Costs of Compliance

We estimate that this proposed AD affects 200 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection for Group 2 airplanes	7 work-hours X \$85 per hour = \$595 per inspection cycle	\$0	\$595 per inspection cycle	\$119,000 per inspection cycle

For Group 1 airplanes, we do not have definitive data that would enable us to provide cost estimates for the action specified in this proposed AD.

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement of a mechanism	7 work-hours X \$85 per hour = \$595	\$29,289	\$29,884

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2012-0801; Directorate Identifier 2012-NM-106-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 737-200 and -200C series airplanes, as identified in Boeing Alert Service Bulletin 737-27A1302, dated April 24, 2012.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 27, Flight Controls.

(e) Unsafe Condition

This AD was prompted by a report of elevator vibration and bearing swage failures. We are issuing this AD to detect and correct discrepancies in the aft attach lugs

for the elevator tab control mechanism, which could result in elevator and tab vibration. Consequent structural failure of the elevator or horizontal stabilizer could result in loss of structural integrity and loss of airplane control.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Group 1 Airplanes

For Group 1 airplanes as identified in Boeing Alert Service Bulletin 737-27A1302, dated April 24, 2012: Within 1,500 flight cycles or 2,000 flight hours after the effective date of this AD, whichever occurs first, inspect the left and right elevator tab control mechanisms, and repair or replace as applicable, in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(h) Inspection for Group 2 Airplanes

For Group 2 airplanes as identified in Boeing Alert Service Bulletin 737-27A1302, dated April 24, 2012: Within 1,500 flight cycles or 2,000 flight hours after the effective date of this AD, whichever occurs first, do a detailed inspection for any discrepancies of the inboard and outboard aft attach lugs of the left and right elevator tab control mechanisms, in accordance with Boeing Alert Service Bulletin 737-27A1302, dated April 24, 2012. Repeat the detailed inspection thereafter at intervals not to exceed 1,500 flight cycles or 2,000 flight hours, whichever occurs first.

(i) Corrective Actions for Paragraph (h) of This AD

If any discrepancy is found during any inspection required by paragraph (h) of this AD, before further flight, replace the discrepant elevator tab control mechanism with a non-discrepant mechanism by doing the actions specified in paragraphs (i)(1) and (i)(2) of this AD.

(1) Do a detailed inspection for discrepancies of the replacement elevator tab control mechanism; and, if no discrepancy is found, before further flight, install the replacement elevator tab control mechanism; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1302, dated April 24, 2012. If any discrepancy is found in that mechanism, then that mechanism may not be installed.

(2) Repeat the inspection on the installed replacement elevator tab control mechanism in accordance with the requirements of paragraph (h) of this AD.

(j) Inspection Report

Submit a report of the findings (both positive and negative) of the initial inspection required by paragraph (h) of this AD to Boeing Commercial Airlines Group, Attention: Manager, Airline Support, e-mail: rse.boecom@boeing.com; at the applicable time specified in paragraph (j)(1) or (j)(2) of this AD. The report must include the inspection results, a description of any discrepancies found, the airplane serial number, and the number of landings and flight hours on the airplane.

(1) If the inspection was done after the effective date of this AD: Submit the report within 30 days after the inspection.

(2) If the inspection was accomplished prior to the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

(k) Parts Installation Limitations

As of the effective date of this AD, no person may install an elevator tab control mechanism assembly, part number 65-79425-2, -3, -4, -5, or -6, on any airplane, unless the assembly has been inspected in accordance with paragraph (i) of this AD both before and after installation.

(l) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a

collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(m) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be e-mailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(n) Related Information

(1) For more information about this AD, contact Kelly McGuckin, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6490; fax: (425) 917-6590; e-mail: Kelly.McGuckin@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate; 1601 Lind Avenue SW, Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on July 23, 2012.

Kalene C. Yanamura,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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